Brooks, Laura

From: Rampe, John
Sent: Thursday, September 08, 2005 9:12 AM
To: Mark Aguilar; Spreng, Carl; David Kruchek
Cc: Brooks, Laura; Castaneda, Norma; Walstrom, Jan
Subject: FW: draft response to comments on the N&E Surface Water and Sediment Contamination SR

Draft Surface Water and Sedime...

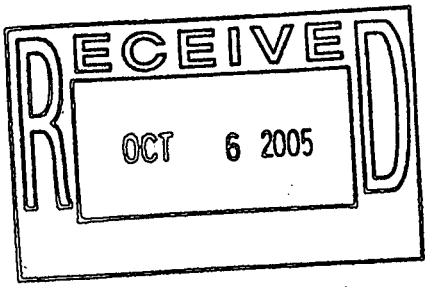
Mark, Carl and Dave:

Attached for your review are our responses to comments for the Nature and Extent of Surface Water and Sediment Summary Report. Please let us know if you have any comments.

JR

-----Original Message-----
From: Brooks, Laura
Sent: Wednesday, August 31, 2005 7:50 AM
To: Rampe, John; Castaneda, Norma; Surovchak, Scott; Schassburger, Richard
Cc: Wiemelt, Karen; Walstrom, Jan; Henry, Richard; Dayton, Christine
Subject: draft response to comments on the N&E Surface Water and Sediment Contamination SR

John,
Attached is the draft response to comments on the Nature and Extent of Surface Water and Sediment Contamination Summary Report dated July 29, 2005. Please review and let me know if you have any comments. If you do not have any comments, please forward to the regulators for their review. Thanks, LMB <<Draft Surface Water and Sediment Responses to Agency Comments.doc>>



ADMIN RECORD

Y/4

SW-A-005252

Comment Responses To
8/18/05 EPA Comments, 8/24/05 CDPHE Comments on
July 29, 2005 Draft Nature and Extent of Surface Water and Sediment Summary Report

No.	Comment From	Comment	Response
1	EPA	**Page5, Section 3.2.** This section states that data adequacy and quality are assessed in Volume 2 of the CRA and the results are presented in the Data Adequacy Report. Please note that the Data Adequacy Report has been submitted for regulatory agency review and comments are pending.	Comment noted.
2	EPA	**Page 8, Section 4.2.** The first sentence of this paragraph states, "Based on the AOI screening process shown in Figure 3, 19 surface water AOIs were retained and included 6 VOCs, 6 metals, 5 radionuclides, and 2 WQP." However, Section 4.2.4 and the bottom of this page states, "*Seven* VOC AOIs (benzene, carbon tetrachloride, chloroform, cis-1,2-dichloroethene, tetrachloroethene, and trichloroethene) were identified in surface water. Please correct this discrepancy.	There are 7 surface water VOC AOIs, including vinyl chloride which should have been retained as an AOI (see response to EPA Comment 5), for a total of 20 surface water AOIs. The text and tables will be modified accordingly.
3	EPA	**Page 14, Section 6.3.1, first paragraph.** This paragraph identifies 7 surface water AOIs. However, according to Table 3, there are only 6 AOIs. Please correct this discrepancy.	There are 7 surface water VOC AOIs, including vinyl chloride which should have been retained as an AOI (see response to EPA Comment 5), for a total of 20 surface water AOIs. The text and tables will be modified accordingly.
4	EPA	**Page 17, Section 6.4.** The first two sentences state, "Nineteen surface water AOIs are identified and retained for further evaluation. These AOIs include 6 VOCs, 6 metals, 5 radionuclides, and 1 WQP." The numbers presented in the second sentence do not match the first sentence. Please correct this discrepancy.	The text will be modified to indicate that there are 2 WQP AOIs. The text and tables will also be modified to indicate that there are 20 surface water AOIs, including 7 VOCs.
5	EPA	**Table 2.** Please provide a footnote and explanation for eliminating vinyl chloride from the surface water AOI list.	Vinyl chloride should not have been eliminated as an AOI since its most recent results exceed the surface water standard along South Walnut Creek. Vinyl chloride will be retained as a surface water AOI. The text and tables will be revised accordingly.
1	CDPHE	**Section 4.1.4** - We have a concern with Figure 3, specifically Screening Step 4. No AOI should be eliminated simply because it is not seen or above the SW standard for one sampling event. As such, screen 4 should be removed or modified. If an analyte has been present in water above standards, just having the latest analysis below standards is not sufficient justification to eliminate it from consideration as an AOI. Therefore, this screening process should be modified and Screen 4 removed as the process is not appropriate without a historical review of the data collected. Only if the AOI has an appropriate	Review of Table 2 (Screen 4) indicates that none of the constituents whose frequency of detection above the surface water standard was greater than 0% were eliminated as an AOI based on Screen 4 for the most recent sampling result. Therefore, Screening Step 4 for surface water can be eliminated per CDPHE suggestion. The text and Figure 3 will be modified accordingly. In addition, Figure 3 will also be modified to show a new Screening Step 4 that eliminates

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		history of declining or non-detect values over an extended period of sampling intervals, and without concerns that it could still be a AOI (GW monitoring data, historical knowledge, future possible changes in GW flow, etc), should it be removed as an AOI.	analytes whose frequency of detection is less than 1% as an AOI and retains analytes whose frequency of detection is greater than or equal to 1% as an AOI. Analytes that are retained in Step 4 will be passed to Screening Step 5. To date, the 1% frequency of detection screen has been included in the text, but not specifically shown on Figure 3, as part of Screening Step 3. In addition, references to the text sections will be included on Figures 3 and 23 so that the reader will be aware that additional information about each screening step is provided in the text.
2	**CDPHE**	**Section 4.1.5** - Process knowledge of materials used at Rocky Flats is limited. While some processes are well known, others are not. Process knowledge may only be used in part to make judgement calls.	DOE recognizes that process knowledge at RFETS is not perfectly known. However, process knowledge alone is not used to eliminate a constituent as an AOI. Other analyte criteria such as its areal distribution relative to RFETS activities, its proximity to contaminant sources, accelerated actions performed to remove contaminant source(s), and its natural occurrence and distribution in the environment are also considered when evaluating whether to retain or eliminate a constituent as an AOI. A reference will also be included in this section and Section 5.1.4 to a recently prepared white paper (DOE, 2005a) on the use of metal and radionuclide constituents at the site.
3	**CDPHE**	A section missing from **Section 4.1** is the decision based on professional judgement whether or not to keep a chemical as an AOI.	The professional judgement screen (AOI Screen 5) is presented in the SR as Section 4.1.5. However, text in the existing section will be modified in response to CDPHE Comment 6 (see below).
4	**CDPHE**	**Section 5.1.2** - An assumption is made that all the analytes have a background. The decision needs to be made first whether it is reasonable to assume a background value exists at the site. For example: thallium.	The nature and extent evaluation did not assume that all analytes have a background value. Background mean + two standard deviation values used to evaluate surface water and sediment nature and extent were developed as part of the Comprehensive Risk Assessment (DOE, 2005b). Background values developed for sediments in the CRA were developed using the regulatory agency-approved CRA Methodology (DOE, 2004). For constituents (organic compounds, some inorganic, and some radionuclides) that do not have background values, it was assumed that detection of these constituents above the analytical detection limit indicates their presence in the environment. A footnote will be added to

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			Figures 3 and 23 to indicate the background assumptions.
5	CDPHE	**Section 5.1.3** - Just because a constituent in sediment is below the PRG in the past does not mean it won't exceed in the future. Remember, a new hydraulic regime will be established in the next few years. As such, please remove or properly modify this step.	This SR provides an evaluation of the current extent of surface water and sediment constituents at RFETS. As such, future conditions are not evaluated or discussed in the nature and extent text. The nature and extent SRs are a section of the comprehensive RI/FS for the site. DOE recognizes that a new hydraulic regime may be established in the future and that it may have an impact on the extent of constituents at the site. Future constituent concentrations, hydrologic changes, and their potential impacts are addressed in the Fate and Transport section (Section 7) of the RI/FS report.
6	CDPHE	**Section 5.1.4** - Please modify this step to recognize that process knowledge at Rocky Flats is not perfectly known. As such, process knowledge may be used, in part, for a decision based on professional judgement.	The text will be modified to indicate that process knowledge of constituent use at RFETS is not perfectly known. The text will also be modified to indicate that process knowledge alone is not used to eliminate a constituent. Other analyte criteria such as its areal distribution relative to RFETS activities, its proximity to contaminant sources, accelerated actions performed to remove the contaminant source(s), and its natural occurrence and distribution in the environment are also considered when evaluating whether to retain or eliminate a constituent as an AOI. A reference will also be included in this section and Section 4.1.5 to a recently prepared white paper (DOE, 2005a) on the use of metal and radionuclide constituents at the site.

References

U. S. Department of Energy, 2004, Final Comprehensive Risk Assessment Work Plan and Methodology, Rocky Flats Environmental Technology Site, Golden, CO, September.

U. S. Department of Energy, 2005a, Review of Historical Knowledge Related to Metals and Selected Radionuclides Identified As Environmental Media Analytes of Interest, Rocky Flats Environmental Technology Site, Golden, Colorado, July 15.

U. S. Department of Energy, 2005b, Draft Comprehensive Risk Assessment for the Rocky Flats Environmental Technology Site, Volume 2, Site Description and Data Evaluation, March 31.